

### REMARKS

Applicants previously presented claims 13-16 and 23-26 for examination. The above-identified Office Action objected to the drawings, and rejected claims 13-16 and 23-26. In this Reply, Applicants have submitted a set of drawings, amended claims 13, 14, 23 and 24, and responded to the rejections. No claims have been added or deleted. Accordingly, claims 13-16 and 23-26 remain pending for examination. Applicants respectfully request that the Examiner reconsider the application in light of the amendments and the remarks expressed herein.

#### Information Disclosure Statement

A prior office action dated January 20, 2006 indicated that a set of references previously submitted were not legible. Though Applicants were not certain why that set of references were not legible, in response to the prior office action, following suggestions made therein, those references were re-submitted with a new Form PTO 1449 just for those references. In a more recent prior office action dated May 11, 2007, 41 references were crossed out from the new Form PTO 1449, with no explanation.

Out of the 41 references, one was a Japanese patent with document number JP 08196741. In the new Form PTO 1449, Applicants mistakenly indicated that the Japanese patent was without translation, though translation was included. As to the remaining 40 crossed-out references, Applicants respectfully request identifying defects in the 40 references so as to allow Applicants an opportunity to correct them. However, upon review, if appropriate, Applicants respectfully request returning the initialed version of the PTO Form 1449 for the 41 references.

#### Objections to the Drawings

The drawings were objected to because the current drawing allegedly does not show every feature of the invention specified in the claims. To prevent complicating the application, Applicants still believe new drawings should be added after the final resolution of the claims. However, to expedite the application, Applicants have added new figures 2 to 5 as new sheets attached to the end of the response. Applicants have also

amended the specification to include reference to the new figures. No new matter has been introduced, for example, because these figures are in U.S. Pat. No. 5,863,208 (issued from U.S. Patent Application No. 08/675,391) and U.S. Pat. No. 5,727,951 (issued from U.S. Patent Application No. 08/664,023), which were incorporated by reference into the current application when the current application was filed.

#### Claim Rejection under 112

Claims 13-16 and 23-26 were rejected under 35 USC 112, first paragraph, as allegedly failing to comply with the enablement requirement. Specifically, the Office Action asserted that (a) the limitation "after selecting the one or more areas, selecting the specific area of the subject to work on" pointed to a reoccurring never ending cycle; (b) the specifications failed to mention "a specific area" and/or positively recite the limitation of "a specific area"; and (c) the specifications failed to explain how the loop of repeated selection would end. Applicants respectfully disagree.

Regarding the "never ending cycle" issue, Applicants submit that the claim element "after selecting the one or more other areas, selecting the specific area of the subject to work on" captures certain limitations of the claimed process. In a very general sense, the above limitation teaches that after presenting materials on area X of a subject, and after selecting area Y, area X is re-selected for the user. There is no cycle further claimed. In other words, the process can stop.

Regarding the issues of the specification failing to mention "a specific area" and/or positively recite the limitation of "a specific area", Applicants submit that "a specific area" is just a term to identify an area in a subject. Applicants could have named it "a first area" or "a second area". Support can be found in different areas of the specification, such as in paragraph 12 of the specification, which states that "...the subject, which can be divided into line-items. Each line-item covers one area in the subject."

Regarding the specification failing to explain how the loop of repeated selection would end, again Applicants submit that as far as the claims are concerned, no never-ending cycle has been claimed. The process can stop after the area X is re-selected.

### Claim Rejection under 102

Claims 13-16 and 23-26 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Siefert (US 5,904,485). For at least the reasons set forth below, Applicants respectfully disagree with the rejections of these claims.

In general terms, Siefert pertains to teaching a student in a style that fits the student. It has an Intelligent Administrator (IA) that helps determine what to present to the student. For example, if "the student has successfully completed 12 of 60 lessons in analytic geometry", "the IA decides that lesson number 13 should be given next."<sup>1</sup> After presenting the materials to the student, the IA assesses the student. Based on the assessment, if the IA concludes that the student does not understand the materials, such as falling below a certain standard, the material will be "presented in a different way."<sup>2</sup> "If that fails, after a predetermined number of attempts, then the IA patches the student into a Subject Master Expert."<sup>3</sup>

In other words, from a general sense, Siefert's system teaches a student. If the student does not understand, the system teaches the student again in a different way. If that still does not work, the system lets an expert teach the student. Siefert does not teach or suggest numerous features in Applicants' claimed invention.

Applicants' independent claim 13 includes a number of limitations, such as the following with emphasis added:

After the presentation of materials regarding a specific area of the subject to the user, and further after the user has been assessed to have achieved at least a passing grade or to have understood the specific area

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selecting one or more other areas of the subject for the user to work on

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after selecting the one or more other areas of the subject for the user to work on,  
selecting the specific area of the subject for the user to work on

<sup>1</sup> Col. 9, lines 16-19, in Siefert.

<sup>2</sup> Siefert's Abstract.

<sup>3</sup> Col. 9, lines 65-67, in Siefert.

Claim 13 also states that "the specific area is selected for the user without depending on whether the user has been assessed to have achieved a certain satisfactory level of understanding in the one or more other areas."

In a very general sense, some of the limitations in Applicants' claim 13 teach that (a) after presenting materials on area X of a subject to a user and after assessing the user to have understood area X, area Y of the subject is selected; (b) after selecting area Y, claim 13 goes back and selects area X for the user; and (c) area X is selected independent of whether the user has been assessed to have achieved a certain satisfactory level in area Y.

Siefert does not teach or suggest selecting area X when previously materials on area X have been presented to the user and the user has been assessed to have understood area X

Like many of the prior art systems, Siefert's Intelligent Administrator introduces the next level of materials to the user if the user has been assessed to understand a lower level of materials. Siefert does not automatically go back and introduce materials that the user has been assessed to have understood. For example, Siefert teaches that if the student has successfully completed 12 of 60 lessons, the IA gives the student the next lesson, lesson 13.<sup>4</sup> Siefert's IA does not go back and select, for example, lesson 10 again for the student. Thus, Siefert does not teach or suggest re-selecting a unit that the student has previously been assessed to have understood.

Siefert does not teach or suggest after selecting Y, selecting area X when previously materials on area X have been presented to the user and the user has been assessed to have understood area X

As explained above, Siefert does not teach or suggest its system re-selecting an area of a subject that the student has previously been assessed to have understood. Not only that, Siefert also does not teach or suggest its system selecting such an area of the subject after another area of the subject has been selected for the student.

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<sup>4</sup> Col. 9, lines 16-19, in Siefert.

Since Siefert does not teach or suggest automatically re-selecting an area previously understood by the student, Siefert could not possibly have taught or suggested such an automatic process after another area has been selected.

Siefert does not teach or suggest area X being selected independent of whether the user has been assessed to have achieved a certain satisfactory level in area Y

As explained above, Siefert does not teach or suggest its system re-selecting a first area of a subject previously understood by the student, and Siefert does not teach or suggest such a process after a second area of the subject has been selected. Further, Siefert does not teach or suggest the process of re-selecting the first area of the subject independent of whether the user has been assessed to have achieved a certain satisfactory level in the second area of the subject.

In distinct contract, Applicants claimed embodiment may still re-select the first area when the user has been assessed not to have achieved a certain satisfactory level in the second area. Or, the fact that the user has been assessed to have achieved a certain satisfactory level in the second area would not automatically lead to the system re-selecting the first area. Siefert could not possibly have taught or suggested such details.

Table 4.2 in Siefert does not teach or suggest Applicants' claimed invention.

In its final paragraph 10 on 102 rejections, the Office Action cited Table 4.2, item 3, stating that Siefert teaches "where reviews of previously learned material are spaced to reinforce long term memory." It is unclear which "item 3" the Office Action is referring to, since Table 4.2 includes three separate items labeled "3". In the following response, Applicants assume the Office Action was referring to item 3 under Intellectual Skill, which states "Scheduling occasions for spaced reviews." Based on that assumption, Applicants submit that there is no teaching or suggestion in Siefert as to whether the reviews discussed there are on previously learned material or whether such reviews might reinforce long term memory. Even if they do, Applicants respectfully disagree that Siefert teaches Applicants' claimed invention.

Siefert cited Gagne's "Essentials of Learning for Instruction" and Gagne's "The Conditions of Learning" for the proposition that certain "internal" conditions and certain "external" conditions are necessary for learning. The internal conditions define prerequisite knowledge or skills, and external conditions define certain aspects of the instruction.<sup>5</sup>

Then Siefert teaches that for the learning of intellectual skills, "the primary internal condition is that the student have prerequisite skills which provide the components of the new skill being learned. External conditions are often in the form of verbal directions which guide the combination of simpler skills into a new integrated whole."<sup>6</sup>

In its Table 4.2, Siefert teaches a summary of external conditions, which can influence learning. Note that these are conditions Siefert believes can influence learning, not conditions Siefert has implemented.

Going back to item 3 under Intellectual Skill in Table 4.2, Siefert states "scheduling occasions for spaced reviews." Siefert has not taught or suggested (a) how such reviews are accomplished, (b) when such reviews would be performed, (c) under what conditions, such reviews would be performed, and (d) what would be covered in such reviews.

In other words, Siefert just stated that such reviews can influence learning. Siefert has not taught or suggested (a) selecting area X when previously materials on area X have been presented to the user and the user has been assessed to have understood area; (b) after selecting Y, selecting area X when previously materials on area X have been presented to the user and the user has been assessed to have understood area X; and (c) area X being selected independent of whether the user has been assessed to have achieved a certain satisfactory level in area Y.

Though Siefert allows a user, via a HELP screen, to request review of a previous unit,<sup>7</sup> this is quite different from a computer programmed to select a previous unit for the user even after the user has been assessed to have understood the previous unit. This is particularly true because Seifert explains that the HELP screen is used to "help a student

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<sup>5</sup> Col. 13, lines 13-20, in Siefert.

<sup>6</sup> Col. 13, lines 24-30, in Siefert.

<sup>7</sup> Col. 14, lines 51-63, in Siefert.

who demonstrates through his or her score that internal conditions of learning are deficient (e.g., prerequisite skills or knowledge are lacking)."<sup>8</sup> Thus, Siefert's HELP screen teaches away from Applicants' claimed invention.

For at least the reasons set forth above, Applicants submit that independent claim 13 and independent claim 23, which includes a number of similar limitations as in claim 13, are patentable over Seifert. Since claims 14-16 depend from and add additional features to independent claim 13, and claims 24-26 depend from and add additional features to independent claim 23, Applicants submit that these dependent claims are also patentable for at least the reasons discussed above.

The following responds to a number of additional incorrect allegations in the Office Action.

Siefert does not teach or suggest selecting an area depending on the time elapsed from when the user has been assessed to have achieved a certain level of understanding in an area

The Office Action also cited Col. 9, lines 14-19, 62-67 in Siefert and alleged that in those sections, "Siefert discloses wherein one or more additional areas or a third area or a fourth area of the subject may be selected for the user to work on after the user has been previously assessed to have a certain satisfactory level of understanding in the area and depending on the time elapsed from the time when the user has been assessed to have achieved a certain level of understanding in the third area."<sup>9</sup> Applicants respectfully disagree. Col. 9, lines 14-19 of Seifert says that when the IA determines that a student has successfully completed 12 of 60 lessons, the AI will provide lesson 13 next. Col. 9, lines 62-67 of Seifert says that the AI will attempt a different teaching strategy if the student is learning at a slower than desired speed; and if that fails after a few attempts, the IA will patch the student into an expert. There are no teachings or suggestions in Siefert of selecting an area depending on the time elapsed from when the user has been assessed to have achieved a certain level of understanding in an area.

<sup>8</sup> Col. 14, lines 45-46 of Siefert, with emphasis added.

<sup>9</sup> Page 4, lines 4-9, of the Office Action.

Siefert does not teach or suggest selecting a specific area for the user without depending on whether the user has been assessed to have achieved a certain satisfactory level of understanding in one or more other areas

In addition, the Office Action cited Col. 14, lines 40-58 in Siefert and alleged that in those sections, "Siefert discloses wherein the area is selected for the user without depending on whether the user has been assessed to have achieved a certain satisfactory level of understanding in the one or more additional areas."<sup>10</sup> Applicants respectfully disagree. Those sections of Siefert describe a HELP screen available at the student's request. It is not clear where in those sections one can find support for the Office Action's allegations. If the Office Action argues that the HELP screen or its content is the area selected for the student, this is inappropriate at least because this HELP screen or its content is selected by the student at the student's request, not selected for the student (e.g., by a computer).

Just because the user in Seifert (via the HELP screen) has the ability to request a previous unit, that does not mean that Seifert teaches a computer implemented method selecting the previous unit "for the user". As explained above, allowing a student to request a previous unit is quite different than a computer selecting the previous unit for the student even after the user has been assessed to have understood the previous unit.

Siefert does not teach or suggest a subject including a narrow area and a broad area covering the narrow area, and a suggestion to a user on the broad area or the narrow area

As to dependent claims 14, 15, 24 and 25, the Office Action also cited Col. 9, lines 10-19 in Siefert, and alleged that in those sections, "Siefert discloses ... wherein the subject includes a broad area (i.e. analytic geometry) and a narrow area (i.e., lesson number 13), with the broad area covering the narrow area; and the suggestion can be on the broad area or the narrow area..."<sup>11</sup> Applicants again respectfully disagree. Those sections of Siefert teach that the IA decides a specific lesson out of a group of lessons in analytic geometry to be given to the student. In other words, Siefert's IA decides which

<sup>10</sup> Page 4, lines 9-12 of the Office Action.

<sup>11</sup> Paragraph 5 on page 4 of the Office Action.



lesson regarding the subject of analytic geometry to be given next. There is no teaching or suggestion of separating analytic geometry into at least one narrow area, and one broad area covering the narrow area, let alone a suggestion to a user on the broad area or the narrow area.

For at least the reasons set forth above, Applicants submit that claims 13-16 and 23-26 are patentable over Seifert. Accordingly, Applicants respectfully request that the 102(e) rejections of these claims be reconsidered and withdrawn.

Regarding the remaining references cited by the Examiner, since they have not been applied against any of the claims and do not appear properly applicable thereto, no further mention thereof will be made.

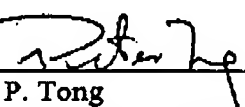
#### Summary

It is submitted that claims 13-16 and 23-26 are patentably distinct from the cited references. Reconsideration of the application and an early Notice of Allowance are earnestly solicited.

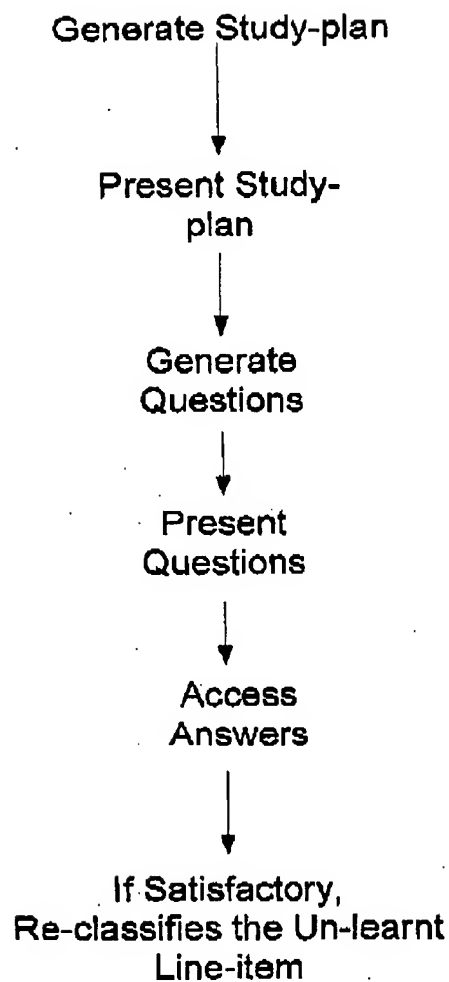
In the event that the Examiner, upon reconsideration, determines that an action other than an allowance is appropriate, the Examiner is requested and authorized to telephone Applicants' representative prior to taking such action, if the Examiner feels that such a telephone call will advance the prosecution of the present application.

Any required fee in connection with the filing of this response is to be charged to Deposit Account No. 50-0727.

Respectfully submitted,

By:   
Peter P. Tong  
Registration No.: 35,757  
1807 Limetree Lane  
Mountain View, CA 94040  
(650) 625-8192

## New Sheet



**Figure 2**